

OIPE

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10/09

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/854,816

DATE: 06/08/2001

TIME: 12:27:39

Input Set : C:\PAOLA\09854816.txt

Output Set: N:\CRF3\06082001\I854816.raw

SEQUENCE LISTING

ENTERED

3 (1) GENERAL INFORMATION:

5 (i) APPLICANT: Andrew C. Braisted

6 J. Kevin Judice

7 Robert S. McDowell

8 J. Christopher Phelan

9 Melissa A. Starovasnik

10 James A. Wells

12 (ii) TITLE OF INVENTION: Constrained Helical Peptides and Methods of
13 Making Same

15 (iii) NUMBER OF SEQUENCES: 113

17 (iv) CORRESPONDENCE ADDRESS:

18 (A) ADDRESSEE: Genentech, Inc.

19 (B) STREET: 1 DNA Way

20 (C) CITY: South San Francisco

21 (D) STATE: California

22 (E) COUNTRY: USA

23 (F) ZIP: 94080

25 (v) COMPUTER READABLE FORM:

26 (A) MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk

27 (B) COMPUTER: IBM PC compatible

28 (C) OPERATING SYSTEM: PC-DOS/MS-DOS

29 (D) SOFTWARE: WinPatin (Genentech)

31 (vi) CURRENT APPLICATION DATA:

C--> 32 (A) APPLICATION NUMBER: US/09/854,816

C--> 33 (B) FILING DATE: 15-May-2001

34 (C) CLASSIFICATION:

36 (vii) PRIOR APPLICATION DATA:

37 (A) APPLICATION NUMBER: 08/965,056

38 (B) FILING DATE:

41 (viii) ATTORNEY/AGENT INFORMATION:

42 (A) NAME: Torchia, PhD., Timothy E.

43 (B) REGISTRATION NUMBER: 36,700

44 (C) REFERENCE/DOCKET NUMBER: P1005R2

46 (ix) TELECOMMUNICATION INFORMATION:

47 (A) TELEPHONE: 650/225-8674

48 (B) TELEFAX: 650/952-9881

49 (2) INFORMATION FOR SEQ ID NO: 1:

51 (i) SEQUENCE CHARACTERISTICS:

52 (A) LENGTH: 36 amino acids

53 (B) TYPE: Amino Acid

54 (D) TOPOLOGY: Linear

W--> 55 (ii) MOLECULE TYPE: DP178

57 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

59 Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln

60 1 5 10 15

62 Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala

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```

63          20          25          30
65 Ser Leu Trp Asn Trp Phe
66          35  36
68 (2) INFORMATION FOR SEQ ID NO: 2:
70   (i) SEQUENCE CHARACTERISTICS:
71       (A) LENGTH: 27 amino acids
72       (B) TYPE: Amino Acid
73       (D) TOPOLOGY: Linear
75   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
77 Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln
78   1          5          10          15
80 Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp
81          20          25          27
83 (2) INFORMATION FOR SEQ ID NO: 3:
85   (i) SEQUENCE CHARACTERISTICS:
86       (A) LENGTH: 27 amino acids
87       (B) TYPE: Amino Acid
88       (D) TOPOLOGY: Linear
90   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
W--> 92 Tyr Thr Ser Leu Ile His Ser Leu Ile Xaa Glu Ser Gln Asn Gln
93   1          5          10          15
W--> 95 Gln Xaa Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp
96          20          25          27
98 (2) INFORMATION FOR SEQ ID NO: 4:
100   (i) SEQUENCE CHARACTERISTICS:
101       (A) LENGTH: 27 amino acids
102       (B) TYPE: Amino Acid
103       (D) TOPOLOGY: Linear
105   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
W--> 107 Tyr Thr Xaa Leu Ile His Ser Leu Ile Xaa Glu Ser Gln Asn Gln
108   1          5          10          15
W--> 110 Gln Xaa Lys Asn Glu Gln Glu Leu Xaa Glu Leu Asp
111          20          25          27
113 (2) INFORMATION FOR SEQ ID NO: 5:
115   (i) SEQUENCE CHARACTERISTICS:
116       (A) LENGTH: 27 amino acids
117       (B) TYPE: Amino Acid
118       (D) TOPOLOGY: Linear
120   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
W--> 122 Tyr Thr Ser Leu Ile His Ser Xaa Ile Glu Glu Ser Gln Asn Xaa
123   1          5          10          15
125 Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp
126          20          25          27
128 (2) INFORMATION FOR SEQ ID NO: 6:
130   (i) SEQUENCE CHARACTERISTICS:
131       (A) LENGTH: 269 amino acids
132       (B) TYPE: Amino Acid
133       (D) TOPOLOGY: Linear
135   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

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```

137 Gly Gly Gly Asp Met Arg Asp Asn Trp Arg Ser Glu Leu Tyr Lys
138 1 5 10 15
140 Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Lys
141 20 25 30
W--> 143 Ala Lys Arg Arg Val Val Gln Arg Glu Lys Arg Ala Val Gly Xaa
144 35 40 45
146 Ile Gly Ala Met Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr
147 50 55 60
149 Met Gly Ala Ala Ser Met Thr Leu Thr Val Gln Ala Arg Gln Leu
150 65 70 75
152 Leu Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile
153 80 85 90
155 Glu Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys
156 95 100 105
158 Gln Leu Gln Ala Arg Val Leu Ala Val Glu Arg Tyr Leu Lys Asp
159 110 115 120
161 Gln Gln Leu Leu Gly Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys
162 125 130 135
164 Thr Thr Ala Val Pro Trp Asn Ala Ser Trp Ser Asn Lys Ser Leu
165 140 145 150
W--> 167 Xaa Xaa Ile Trp Xaa Asn Met Thr Trp Met Glu Trp Glu Arg Glu
168 155 160 165
W--> 170 Ile Asp Asn Tyr Thr Xaa Leu Ile Tyr Thr Leu Ile Glu Glu Ser
171 170 175 180
173 Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp
174 185 190 195
W--> 176 Lys Trp Ala Ser Leu Trp Asn Trp Phe Xaa Ile Thr Asn Trp Leu
177 200 205 210
179 Trp Tyr Ile Lys Ile Phe Ile Met Ile Val Gly Gly Leu Val Gly
180 215 220 225
182 Leu Arg Ile Val Phe Ala Val Leu Ser Ile Val Asn Arg Val Arg
183 230 235 240
W--> 185 Gln Gly Tyr Ser Pro Leu Ser Phe Gln Thr Xaa Leu Pro Ala Pro
186 245 250 255
188 Arg Gly Pro Asp Arg Pro Glu Gly Ile Glu Glu Glu Gly Gly
189 260 265 269
191 (2) INFORMATION FOR SEQ ID NO: 7:
193 (i) SEQUENCE CHARACTERISTICS:
194 (A) LENGTH: 268 amino acids
195 (B) TYPE: Amino Acid
196 (D) TOPOLOGY: Linear
W--> 197 (ii) MOLECULE TYPE: HIV-JRCSE
199 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
201 Gly Gly Gly Asp Met Arg Asp Asn Trp Arg Ser Glu Leu Tyr Lys
202 1 5 10 15
204 Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Lys
205 20 25 30
207 Ala Lys Arg Arg Val Val Gln Arg Glu Lys Arg Ala Val Gly Ile
208 35 40 45

```

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```

210 Gly Ala Leu Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met
211                               50                               55                               60
213 Gly Ala Arg Ser Met Thr Leu Thr Val Gln Ala Arg Gln Leu Leu
214                               65                               70                               75
216 Ser Gly Ile Val Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu
217                               80                               85                               90
219 Ala Gln Gln His Met Leu Gln Leu Thr Val Trp Gly Ile Lys Gln
220                               95                               100                              105
222 Leu Gln Ala Arg Val Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
223                               110                              115                              120
225 Gln Leu Met Gly Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys Thr
226                               125                              130                              135
228 Thr Ala Val Pro Trp Asn Thr Ser Trp Ser Asn Lys Ser Leu Asp
229                               140                              145                              150
231 Ser Ile Trp Asn Asn Met Thr Trp Met Glu Trp Glu Lys Glu Ile
232                               155                              160                              165
234 Glu Asn Tyr Thr Asn Thr Ile Tyr Thr Leu Ile Glu Glu Ser Gln
235                               170                              175                              180
237 Ile Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys
238                               185                              190                              195
240 Trp Ala Ser Leu Trp Asn Trp Phe Gly Ile Thr Lys Trp Leu Trp
241                               200                              205                              210
243 Tyr Ile Lys Ile Phe Ile Met Ile Val Gly Gly Leu Ile Gly Leu
244                               215                              220                              225
246 Arg Ile Val Phe Ser Val Leu Ser Ile Val Asn Arg Val Arg Gln
247                               230                              235                              240
249 Gly Tyr Ser Pro Leu Ser Phe Gln Thr Leu Leu Pro Ala Thr Arg
250                               245                              250                              255
252 Gly Pro Asp Arg Pro Glu Gly Ile Glu Glu Glu Gly Gly
253                               260                              265                              268

```

255 (2) INFORMATION FOR SEQ ID NO: 8:

257 (i) SEQUENCE CHARACTERISTICS:

258 (A) LENGTH: 268 amino acids

259 (B) TYPE: Amino Acid

260 (D) TOPOLOGY: Linear

262 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

```

264 Gly Gly Gly Asp Met Arg Asp Asn Trp Arg Ser Glu Leu Tyr Lys
265 1 5 10 15
267 Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Lys
268 20 25 30
270 Ala Lys Arg Arg Val Val Gln Arg Glu Lys Arg Ala Val Gly Ile
271 35 40 45
273 Gly Ala Val Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met
274 50 55 60
276 Gly Ala Ala Ser Met Thr Leu Thr Val Gln Ala Arg Leu Leu Leu
277 65 70 75
279 Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu
280 80 85 90
282 Ala Gln Gln Arg Met Leu Gln Leu Thr Val Trp Gly Ile Lys Gln

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```

283          95          100          105
285 Leu Gln Ala Arg Val Leu Ala Val Glu Arg Tyr Leu Gly Asp Gln
286          110          115          120
288 Gln Leu Leu Gly Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys Thr
289          125          130          135
291 Thr Ala Val Pro Trp Asn Ala Ser Trp Ser Asn Lys Ser Leu Asp
292          140          145          150
294 Arg Ile Trp Asn Asn Met Thr Trp Met Glu Trp Glu Arg Glu Ile
295          155          160          165
297 Asp Asn Tyr Thr Ser Glu Ile Tyr Thr Leu Ile Glu Glu Ser Gln
298          170          175          180
300 Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys
301          185          190          195
303 Trp Ala Ser Leu Trp Asn Trp Phe Asp Ile Thr Lys Trp Leu Trp
304          200          205          210
306 Tyr Ile Lys Ile Phe Ile Met Ile Val Gly Gly Leu Val Gly Leu
307          215          220          225
309 Arg Leu Val Phe Thr Val Leu Ser Ile Val Asn Arg Val Arg Gln
310          230          235          240
312 Gly Tyr Ser Pro Leu Ser Phe Gln Thr Leu Leu Pro Ala Pro Arg
313          245          250          255
315 Gly Pro Asp Arg Pro Glu Gly Ile Glu Glu Gly Gly
316          260          265          268
318 (2) INFORMATION FOR SEQ ID NO: 9:
320 (i) SEQUENCE CHARACTERISTICS:
321 (A) LENGTH: 268 amino acids
322 (B) TYPE: Amino Acid
323 (D) TOPOLOGY: Linear
325 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
327 Gly Gly Gly Asp Met Arg Asp Asn Trp Arg Ser Glu Leu Tyr Lys
328 1 5 10 15
330 Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Arg
331 20 25 30
333 Ala Lys Arg Arg Val Val Gln Arg Glu Lys Arg Ala Val Gly Leu
334 35 40 45
336 Gly Ala Leu Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met
337 50 55 60
339 Gly Ala Arg Ser Met Thr Leu Thr Val Gln Ala Arg Gln Leu Leu
340 65 70 75
342 Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu
343 80 85 90
345 Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln
346 95 100 105
348 Leu Gln Ala Arg Val Leu Ala Val Glu Arg Tyr Leu Arg Asp Gln
349 110 115 120
351 Gln Leu Leu Glu Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys Thr
352 125 130 135
354 Thr Thr Val Pro Trp Asn Ala Ser Trp Ser Asn Lys Ser Leu Asn
355 140 145 150

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/854,816

DATE: 06/08/2001

TIME: 12:27:40

Input Set : C:\PAOLA\09854816.txt

Output Set: N:\CRF3\06082001\I854816.raw

L:32 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:33 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:55 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:95 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:197 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=7
L:1239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:1248 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:1968 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:1977 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:2001 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:2004 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:2013 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:3213 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58
L:3240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59
L:3267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60
L:3405 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67
L:3426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67
L:3429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67
L:3432 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67
L:3441 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67
L:3450 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67
L:3891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76
L:3894 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76
L:3906 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76
L:3915 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76
L:4269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84
L:4275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84
L:4293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84
L:4317 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84
L:4677 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:92
L:4701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93
L:4758 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96
L:4800 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96
L:5079 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:102
L:5091 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:5094 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:5097 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:5100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:5103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103

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L:5106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:5109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:5112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:5115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:5118 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:5121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103